

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NM-19-AD; Amendment 39-13162; AD 2003-11-03]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 727, 737-100, 737-200, and 737-200C Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 727, 737-100, 737-200, and 737-200C series airplanes, that requires one-time inspections to determine the part numbers of hydraulic accumulators installed in various areas of the airplane, and follow-on corrective actions if necessary. The actions specified by this AD are intended to prevent high-velocity separation of a barrel, piston, or end cap from a hydraulic accumulator. Such separation could result in injury to personnel in the accumulator area; loss of cabin pressurization; loss of affected hydraulic systems; or damage to plumbing, electrical installations, or structural members. This action is intended to address the identified unsafe condition.

DATES: Effective July 3, 2003.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of July 3, 2003.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Barbara Mudrovich, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6477; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Boeing Model 727, 737-100, 737-200, and 737-200C series airplanes was published as a

supplemental notice of proposed rulemaking (NPRM) in the Federal Register on January 3, 2003 (68 FR 311). That supplemental NPRM proposed to require one-time inspections to determine the part numbers of hydraulic accumulators installed in various areas of the airplane, and follow-on corrective actions if necessary.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the single comment received.

Request To Remove a Certain Part Number

The commenter, the manufacturer, asks that Boeing part number (P/N) BACA11E4S (vendor P/N 60857-4) be removed from paragraphs (b)(3) and (c)(3) of the proposed AD. The commenter states that the proposed AD specifies replacement of the existing clamps and mounting hardware with stronger clamps and hardware if a hydraulic accumulator having P/N BACA11E4S is installed. The commenter adds that Boeing P/N BACA11E4S is an acceptable alternative to the suspect accumulators and was identified in the service bulletins referenced in those paragraphs as needing no work if installed. The commenter concludes that it is not necessary to replace existing accumulator clamps and mounting hardware for these accumulators, as the existing clamps and mounting hardware have been analyzed and found to be sufficient for the anticipated loads.

The FAA agrees with the commenter. The referenced service bulletins specify that no action is required if the subject part number is installed. Hydraulic accumulators having vendor P/N 60857-4 are equivalent to P/N BACA11E4S; these accumulators have aluminum end caps but are an acceptable alternative to the discrepant accumulators. We have removed P/N BACA11E4S from paragraphs (b)(3) and (c)(3) of this final rule.

Conclusion

After careful review of the available data, including the comment noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the change previously described. The FAA has determined that this change will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 1,832 Model 727 series airplanes and 1,033 Model 737 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 1,294 Model 727 series airplanes and 376 Model 737 series airplanes of U.S. registry will be affected by this AD.

We estimate that it will take approximately 1 work hour per airplane to accomplish each one-time inspection, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of each one-time inspection on U.S. operators is estimated to be \$100, \$200, or \$60 per airplane.

Cost Impact: On-Condition Actions

For an airplane subject to the replacement per Service Bulletin 727-29-0064, we estimate that it will take approximately 5 work hours per accumulator (two hydraulic system accumulators per airplane) to accomplish, at an average labor rate of \$60 per work hour. Required parts will cost between \$1,400 (new part) and \$2,810 (vendor-modified part) per accumulator. Based on these figures, the cost impact of this replacement, if necessary, will be between \$1,700 and \$3,110 per accumulator.

For an airplane subject to the replacement of both the mounting clamps and hardware and the hydraulic accumulator per Service Bulletin 727-32-0410, we estimate that it will take approximately 6 work hours per airplane to accomplish (one landing gear brake accumulator per airplane), at an average labor rate of \$60 per work hour. Required parts will cost between \$2,500 (new part) and \$3,975 (vendor-modified part) per airplane. Based on these figures, the cost impact of this replacement, if necessary, will be between \$2,860 and \$4,335 per airplane.

For an airplane subject to the replacement of both the mounting clamps and hardware and the hydraulic accumulator per Service Bulletin 727-52-0148, we estimate that it will take approximately 6 work hours per airplane to accomplish (one aft airstairs hydraulic accumulator per airplane), at an average labor rate of \$60 per work hour. Required parts will cost between \$2,500 (new part) and \$3,975 (vendor-modified part) per airplane. Based on these figures, the cost impact of this replacement, if necessary, will be between \$2,860 and \$4,335 per airplane.

For an airplane subject to the replacement per Service Bulletin 737-32-1334, we estimate that it will take approximately 5 work hours per accumulator to accomplish (two landing gear hydraulic brake accumulators per airplane), at an average labor rate of \$60 per work hour. Required parts will cost between \$2,175 (operator-modified part) and \$2,410 (vendor-modified part) per accumulator. Based on these figures, the cost impact of this replacement, if necessary, will be between \$2,475 and \$2,710 per accumulator.

For an airplane subject to the replacement per Service Bulletin 737-78-1068, we estimate that it will take approximately 5 work hours per accumulator to accomplish, at an average labor rate of \$60 per work hour. Required parts will cost between \$2,175 (operator-modified part) and \$2,410 (vendor-modified part) per accumulator. Based on these figures, the cost impact of this replacement, if necessary, will be between \$2,475 and \$2,710 per accumulator.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-11-03 Boeing: Amendment 39-13162. Docket 2002-NM-19-AD.

Applicability: Model 727 series airplanes, line numbers (L/N) 1 through 1832 inclusive; and Model 737-100, -200, and -200C series airplanes, L/N 1 through 1033 inclusive; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (j) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent high-velocity separation of a barrel, piston, or end cap from a hydraulic accumulator, which could result in injury to personnel in the accumulator area; loss of cabin pressurization; loss of affected hydraulic systems; or damage to plumbing, electrical installations, or structural members; accomplish the following:

Inspection/Corrective Action: Service Bulletin 727-29-0064

(a) For airplanes listed in Boeing Special Attention Service Bulletin 727-29-0064, Revision 1, dated May 3, 2001: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, do a one-time inspection to determine the part numbers (P/Ns) of hydraulic accumulators in hydraulic systems "A" and "B," per the Accomplishment Instructions of the service bulletin.

(1) If no hydraulic accumulator with Parker P/N 1356-603303 is installed: No further action is required by this paragraph.

(2) If any hydraulic accumulator with Parker P/N 1356-603303 is installed: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, replace the subject hydraulic accumulator with a new or modified accumulator, per the service bulletin.

Note 2: Boeing Special Attention Service Bulletin 727-29-0064, Revision 1, refers to Parker Service Bulletin 1356-603303-29-60, dated January 9, 2001, as the appropriate source of service information for modification of the hydraulic accumulators that are subject to replacement per Service Bulletin 727-29-0064, Revision 1.

Inspection/Corrective Action: Service Bulletin 727-32-0410

(b) For airplanes listed in Boeing Special Attention Service Bulletin 727-32-0410, Revision 2, dated January 24, 2002: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, do a one-time inspection to determine the P/N of the hydraulic accumulator in the landing gear brake system, per the service bulletin.

(1) If no hydraulic accumulator with P/N 1356-603399, 3780078-104, BACA11E4S, BACA11E4SA, 60857-4-1, or BACA11E4 (vendor P/N 2660472-4 or 2660472M4) is installed: No further action is required by this paragraph.

(2) If any hydraulic accumulator with P/N 1356-603399 or BACA11E4 (vendor P/N 2660472-4 or 2660472M4) is installed: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, replace existing accumulator clamps and mounting hardware with new, stronger accumulator clamps and mounting hardware, and replace the subject hydraulic accumulator with a new or modified accumulator, per the service bulletin.

(3) If any hydraulic accumulator with P/N 3780078-104, BACA11E4SA, or 60857-4-1 is installed: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, replace existing accumulator clamps and mounting hardware with new, stronger accumulator clamps and mounting hardware, per the service bulletin.

Note 3: Boeing Special Attention Service Bulletin 727-32-0410, Revision 2, refers to Parker Service Bulletins 1356-603399-29-61 and 2660472-29-63, both dated December 12, 2000, as the appropriate sources of service information for modification of the hydraulic accumulators that are subject to replacement per Service Bulletin 727-32-0410, Revision 2.

Inspection/Corrective Action: Service Bulletin 727-52-0148

(c) For airplanes listed in Boeing Special Attention Service Bulletin 727-52-0148, Revision 2, dated January 24, 2002: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, do a one-time inspection to determine the P/N of the hydraulic accumulator in the aft airstairs, per the service bulletin.

(1) If no hydraulic accumulator with P/N 1356-603399, 3780078-104, BACA11E4S, BACA11E4SA, 60857-4-1, or BACA11E4 (vendor P/N 2660472-4 or 2660472M4) is installed: No further action is required by this paragraph.

(2) If any hydraulic accumulator with P/N 1356-603399 or BACA11E4 (vendor P/N 2660472-4 or 2660472M4) is installed: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, replace existing accumulator clamps and mounting hardware with new, stronger accumulator clamps and mounting hardware, and replace the subject hydraulic accumulator with a new or modified accumulator, per the service bulletin.

(3) If any hydraulic accumulator with P/N 3780078-104, BACA11E4SA, or 60857-4-1 is installed: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, replace existing accumulator clamps and mounting hardware with new, stronger accumulator clamps and mounting hardware, per the service bulletin.

Note 4: Boeing Special Attention Service Bulletin 727-52-0148, Revision 2, refers to Parker Service Bulletins 1356-603399-29-61 and 2660472-29-63, both dated December 12, 2000, as the appropriate sources of service information for modification of the hydraulic accumulators that are subject to replacement per Service Bulletin 727-52-0148, Revision 2.

Inspection/Corrective Action: Service Bulletin 737-32-1334

(d) For airplanes listed in Boeing Special Attention Service Bulletin 737-32-1334, Revision 1, dated March 1, 2001: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, do a one-time inspection to determine the P/Ns of the hydraulic accumulators in the landing gear brake system, per the service bulletin.

(1) If no hydraulic accumulator with P/N BACA11E2 (vendor P/N 2660472-2 or 2660472M2) is installed: No further action is required by this paragraph.

(2) If any hydraulic accumulator with P/N BACA11E2 (vendor P/N 2660472-2 or 2660472M2) is installed: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, replace the subject hydraulic accumulator with a new or modified accumulator, per the service bulletin.

Note 5: Boeing Special Attention Service Bulletin 737-32-1334, Revision 1, refers to Parker Service Bulletin 2660472-29-63, dated December 12, 2000, as the appropriate source of service information for modification of the hydraulic accumulators that are subject to replacement per Service Bulletin 737-32-1334, Revision 1.

Inspection/Corrective Action: Service Bulletin 737-78-1068

(e) For airplanes listed in Boeing Special Attention Service Bulletin 737-78-1068, Revision 1, dated March 1, 2001: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, do a one-time inspection to determine the P/Ns of the hydraulic accumulators in the thrust reverser actuation system, per the service bulletin.

(1) If no hydraulic accumulator with P/N BACA11E2 (vendor P/N 2660472-2 or 2660472M2) is installed: No further action is required by this paragraph.

(2) If any hydraulic accumulator with P/N BACA11E2 (vendor P/N 2660472-2 or 2660472M2) is installed: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, replace the subject hydraulic accumulator with a new or modified accumulator, per the service bulletin.

Note 6: Boeing Special Attention Service Bulletin 737-78-1068, Revision 1, refers to Parker Service Bulletin 2660472-29-63, dated December 12, 2000, as the appropriate source of service information for modification of the hydraulic accumulators that are subject to replacement per Service Bulletin 737-78-1068, Revision 1.

Inspections Accomplished per Previous Issues of Service Bulletins

(f) Inspections and replacements accomplished before the effective date of this AD per Boeing Special Attention Service Bulletin 727-29-0064, dated June 8, 2000, are considered acceptable for compliance with the corresponding action required by paragraph (a) of this AD.

(g) Inspections and replacements accomplished before the effective date of this AD per Boeing Special Attention Service Bulletin 737-32-1334, dated May 11, 2000, are considered acceptable for compliance with the corresponding actions required by paragraph (d) of this AD.

(h) Inspections and replacements accomplished before the effective date of this AD per Boeing Special Attention Service Bulletin 737-78-1068, dated June 8, 2000, are considered acceptable for compliance with the corresponding action required by paragraph (e) of this AD.

Part Installation

(i) As of the effective date of this AD, no one may install a hydraulic accumulator with a P/N listed in paragraph (a)(2), (b)(2), (c)(2), (d)(2), or (e)(2) of this AD on any airplane.

Alternative Methods of Compliance

(j) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 7: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(k) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(l) Unless provided otherwise in this AD, the actions shall be done in accordance with Boeing Special Attention Service Bulletin 727-29-0064, Revision 1, dated May 3, 2001; Boeing Special Attention Service Bulletin 727-32-0410, Revision 2, dated January 24, 2002; Boeing Special Attention Service Bulletin 727-52-0148, Revision 2, dated January 24, 2002; Boeing Special Attention Service Bulletin 737-32-1334, Revision 1, dated March 1, 2001; and Boeing Special Attention Service Bulletin 737-78-1068, Revision 1, dated March 1, 2001; as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(m) This amendment becomes effective on July 3, 2003.

Issued in Renton, Washington, on May 20, 2003.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03-13117 Filed 5-28-03; 8:45 am]

BILLING CODE 4910-13-P